

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Yuji FUJIMORI, et al.

SERIAL NO: New US PCT Application Based on PCT/JP05/01804

GAU:

FILED: Herewith

EXAMINER:

FOR: CATALYST FOR PRODUCING ALPHA, BETA-UNSATURATED CARBOXYLIC ACID AND METHOD FOR PREPARATION THEREOF, AND METHOD FOR PRODUCING ALPHA, BETA-UNSATURATED CARBOXYLIC ACID

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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IAP11 Rec'd PCT/PTO 10 AUG 2005 SHEET 1 OF 1

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 294602US0PCT		SERIAL NO. New US PCT Application Based on PCT/JP05/01804	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Yuji FUJIMORI, et al.			
				FILING DATE Herewith		GROUP	
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	4 435 598	03/06/1984	HINNENKAMP			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
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	AL						
	AM						
	AN						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES                  NO		
	AO	51 1389	01/08/1976	JP (equivalent of US 3969274)		NO	
	AP	3 86242	04/11/1991	JP (with English abstract and equivalent of US 5153162)		NO	
	AQ	3 109946	05/09/1991	JP (with English abstract and equivalent of US 5082819)		NO	
	AR	2001 172222	06/26/2001	JP (with English abstract)		NO	
	AS	60 155148	08/15/1985	JP		NO	
	AT	60 139341	07/24/1985	JP		NO	
	AU	60 139643	07/24/1985	JP		NO	
	AV	02 083299	10/24/2002	WO		NO	
	AW	56 59722	05/23/1981	JP (with English abstract)		NO	
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	AX						
	AY						
	AZ					<input type="checkbox"/> Additional References sheet(s) attached	
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

New U.S. PCT Application Based on PCT/JP05/01804

Yuji FUJIMORI, et al.

Docket No. 294602 US

STATEMENT OF RELEVANCY

- 1) References AA and AO-AQ have been cited in the International Search Report. A copy of these references is being submitted herewith.
- 2) References            have been cited in the corresponding            Search Report. A copy of these references is being submitted herewith.
- 3) References AR-AW are discussed in the specification. A copy of these references is being submitted herewith.
- 4) References            are additional prior art known to Applicant. A copy of these references is being submitted herewith.

(AS)- JP 60-155148: What is claimed in claim 1 is a method for manufacturing an alpha, beta-unsaturated carboxylic acid: consisting a step oxidizing a C<sub>3</sub>-C<sub>6</sub> olefin mixed with air or oxygen in a liquid medium containing a free radical inhibitor in the presence of an activated palladium metal catalyst, wherein the catalyst is activated by contacting the supported palladium metal catalyst with the same or a different C<sub>3</sub>-C<sub>6</sub> olefin at least 60 °C for at least 10 minutes in the liquid medium substantially in the absence of oxygen; or consisting the oxidizing step after the activating step.

(AT)- JP 60-139341: What is claimed in claim 1 is an activated palladium metal catalyst manufactured by contacting a supported palladium metal catalyst with a C<sub>3</sub>-C<sub>6</sub> olefin at at least about 60 °C for at least about 10 minutes in a liquid medium substantially in the absence of oxygen.

(AU)- JP 60-139643: What is claimed in claim 1 is a method for manufacturing an alpha, beta-unsaturated carboxylic acid: consisting a step oxidizing a C<sub>3</sub>-C<sub>6</sub> olefin mixed with air or oxygen in a liquid medium containing a surfactant system consisted of a surfactant and a cosurfactant, respectively, of not more than about 1.5 vol% in the presence of an activated palladium metal catalyst, wherein the catalyst is activated by contacting the supported palladium metal catalyst with the same or a different C<sub>3</sub>-C<sub>6</sub> olefin at least about 60 °C for at least about 10 minutes in the liquid medium substantially in the absence of oxygen; or consisting the oxidizing step after the activating step.

(AO)- JP 51-1389: What is claimed in claim 1 is a catalyst comprising: a activated catalytic material and a support medium preliminary formed; wherein the activated catalytic material is one selected from metals, salts, oxides, acids, alloys, heteropoly acids, herteropoly acid salts of an element of IB, IIB, IVB, V, VIB, VIIB or VII group, and mixtures thereof; comprising a xerogel of silica distilled at 300 °C or lower which has a legitimate or middle density as the support medium.